



BOROUGH OF PRESTON.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

URBAN AND PORT SANITARY AUTHORITIES,

FOR THE

Year ending December 31st, 1903.

H. O. PILKINGTON,

MEDICAL OFFICER OF HEALTH,

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Report of the Medical Officer of Health

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Gentlemen,

It may be remembered that I commenced my Annual Report for the year 1902 with a statement to the effect that the death rate for that period was absolutely the lowest of any recorded in the annals of the town, and now I have the satisfaction of being able to repeat this statement with regard to 1903, since the vital statistics for the past year show that the rate of mortality—though practically the same—is in reality a trifle lower than that of its immediate predecessor.

And without losing sight of the good results which have undoubtedly followed upon the sanitary progress made in recent years, a great deal of the improvement observable in the two years in question must be attributed to one common cause, viz., the climatic conditions observable during the summer months—the short period of excessive heat and the consequent reduction in the Diarrhœal mortality amongst the infantile population. As might be expected, this was a condition not confined to any one locality, but generally felt throughout the country, and so the universal reduction in the death rate from Diarrhœa must be accepted as a counterpoise to the cold, wet, and otherwise unsatisfactory summer.

For the first time for a considerable number of years, indeed since 1894, I have to record a death from Small Pox. Towards the close of 1902, as stated in my last Report, Small Pox appeared in the town, and during the month of December 16 cases in all were reported and removed to hospital. I propose now to give a short account of the outbreak, which, commencing at that time, continued until the beginning of July, 1903, when it was practically stamped out; although a further mild case occurred in October and was discharged from hospital early in the following month.

At the beginning of the year 1903, 16 cases had in all been admitted, and of these 5 had been discharged, so that 11 were then remaining under treatment.

The first case of all was a hawker who had in all probability contracted the disease during his journeys in the surrounding country districts. He had not been vaccinated since infancy, and showed two small, ill-defined cicatrices. There were circumstances connected with this case which gave cause, both when first seen, and after his removal to hospital, for grave anxiety. I found him amongst a number of other patients in the surgery of a Medical man doing a large working class practice, and 2 later cases—Nos. 10 and 11—who were then present, undoubtedly contracted infection at that time. Again just before Christmas, and when nearly convalescent, he took an opportunity of decamping from the hospital, and though I had him safely back within 3 hours time, he had in the meantime done his best, by visiting public houses and barbers shops, to cause as much mischief as possible. Probably owing to his being nearly free from all trace of the disease, and to the use in hospital of disinfectants, no further case could be traced to this escapade. The fact that he was crippled in body, and not very strong mentally, alone prevented my taking proceedings against him.

Of the other cases admitted during 1902, 12 were removed from Common Lodging Houses, and 2 were young children, sisters, residing—as did also the remaining case—at the East end of the town.

Amongst these patients there was considerable variation as regards the severity of the attack, but 5 developed the disease in such a modified form, that, although admitted during December, they were discharged the same month.

All the cases so far had been removed to hospital, so that at the commencement of the past year there still remained 11 under treatment, but no other case outside in the town.

From the beginning of the year until June fresh cases continued to come under observation, although at varying intervals, as many as 4 having been discovered in one day, while again for a period of a fortnight or longer the town would continue free from any fresh outbreak. With 2 exceptions, in one of which the diagnosis was for some time doubtful, and in the other there were circumstances preventing the patient's leaving home, all the cases were promptly removed to the hospital at Holme Slack.

This was the building erected by the Ducker Co. in Moor Park to meet the epidemic of 1888-89, afterwards stored away, and again rebuilt on the present site at the beginning of the milder outbreak of 1893. Since then it has been used for such cases as have from time to time occurred, and by constant care and watchful attention has been kept in a serviceable condition, and ready for immediate use, so that I was able to effect the removal of the first case of the present epidemic immediately upon its being brought to my notice. The following Table gives particulars not only of all the cases admitted during the past year, but also of those dealt with during the previous December of 1902.

Consecutive Number.	Sex.	Age.	Vaccination.		Unvaccinated.	Nature of Disease,	Result.	Remarks.
			When done.	Marks.				
1	M	46	Infancy	2 slight		Variola Modified	Recovery	
2	M	9				" "	"	
3	M		"	3 slight		" "	"	
4	M	14	"	3		Variola	"	
5	M	28			Yes	"	"	
6	F	7	"	2		Variola Modified	"	Sister to No. 12.
7	F	30			Yes	" "	"	
8	F	8			Yes	" "	"	
9	F	36	"	2		" "	"	
10	F	42	"	2 slight		Variola Semi-confluent	"	Contracted from No. 1.
11	M	38	"	2		Variola Modified	"	" " "
12	F	9	"	3		" "	"	Sister to No. 6.
13	M	46			Yes	Variola	"	
14	M	13			Yes	"	"	Son of No. 13.
15	F	14 mos			Yes	Variola Confluent	Death	Vaccinated just before Admission.
16	M	14			Yes	Variola	Recovery	Son of No. 13.
17	M	33			Yes	Variola Confluent	"	
18	M	33	"	2 slight		Variola	"	
19	M	60	"	slight		Variola Confluent	"	
20	M	24			Yes	" "	"	Secondary Abscesses.
21	M	35	"	3		Variola	"	From H.M. Gaol.
22	M	38	"	3		Variola	"	
23	M	26	"	2		Variola Modified	"	
24	F	15			Yes	Variola	"	
25	M	47	"	3		Variola Modified	"	Lodger with No. 23.
26	M	51			Yes	" "	"	
27	F	53	"	3 slight		Variola Confluent	"	From H.M. Gaol.
28	F	27	"	3		Variola Modified	"	
29	F	11			Yes	Variola Confluent	Death	
30	M	5			Yes	" "	Recovery	Brother to No. 29
31	F	4			Yes	Variola	"	
32	F	11		4		Variola Modified	"	Vaccinated 12 days before admission. Daughter of 25.
33	M	28	"	2		" "	"	
34	M	23	"	4		" "	"	
35	M	41	"	3		" "	"	Neighbour to Nos. 37 and 38.
36	F	48	"	4		Variola Confluent	"	
37	F	46	"	3		" "	"	Neighbour to Nos. 35 and 38.
38	F	61	"	4 slight		Variola	"	Neighbour to Nos. 35 and 37.
39	M	33	"	3		Variola Modified	"	Brother to No. 35.
40	M	29				" "	"	Vaccinated day of admission
41	F	29	"	3		" "	"	
42	M	36	"	3		" "	"	
43	M	32	"	2		" "	"	
44	F	18			Yes	Variola Confluent	"	Vaccinated day after appearance of eruption.
45	F	44	"	3		Variola Modified	"	
46	M	24	"	5		" "	"	

Only 2 deaths occurred, both being unvaccinated cases in which the disease was of a severe confluent form, the one a girl aged 11 years, and the other an infant of 13 months. The great proportion of unvaccinated patients is contrary to my experience of former epidemics, and is no doubt the result of the unsatisfactory manner in which the Vaccination Act has of late years, and in many places, been carried out.

As usual there was a well marked difference between the vaccinated and unvaccinated cases, both as regards the severity of the attack, the rapidity of convalescence, and the complete and uninterrupted way in which this was carried on until the patients recovery.

Many of the patients, especially in the early part of the epidemic were removed from the Common Lodging Houses, and these throughout the whole time were a source of trouble and anxiety. Daily inspection was made of the inmates, and after the removal of a patient to hospital the other residents in the Lodging House were kept in quarantine, a certain daily sum being paid by the Health Committee for their maintenance. Re-vaccination was also carried out, payment of one shilling being made to each person who consented to this operation, while the Lodging House Keepers were advised to refuse admission to all who declined to submit to this necessary measure.

Considering the circumstances attendant upon many of the cases, and that there were several distinct and separate introductions of infection into the town, it is a matter for congratulation that the outbreak was confined to such a small number of cases, that the mortality was so slight, and that practically no interference occurred to the business of the town.

These good results were mainly due to the fact that hospital accommodation was from the first available for the reception of patients, to the energy of the Public Vaccinators and their Vaccination Officer, and to the zeal and loyalty with which all the officials of the Health Department performed their onerous, disagreeable, and dangerous duties. Although all were equally willing, and though cases occurred in all parts of the town, it was from No. 4 Sanitary District—comprising St. John's Ward and the majority of the Common Lodging Houses—that the great proportion were removed, and it was upon Inspector Livesey that the duty of visiting these establishments devolved. Nor can I speak too highly of Disinfectors Bland who at all times, Sunday or week day, by day or by night, was ready to superintend the transfer of a patient to hospital, and to commence the disinfection of the premises from which he had been removed.

I also received the greatest assistance from Mr. and Mrs. Whelan, the resident caretakers at the hospital, who were not only always prepared for the reception of a patient, but who throughout the whole epidemic, in addition to their ordinary work, looked after the providing and cooking of the patients food.

Revaccination was carried out throughout the staff, and it is a proof of its efficacy that despite the fact that many were brought into the closest contact with the disease, not a single one contracted infection.

During the epidemic Chicken Pox was also present in the town, and in some cases it was a matter of considerable difficulty to decide whether the patient was suffering from the latter disease, or from Small Pox modified by vaccination.

With the two exceptions referred to, all the cases recognized as Small Pox were removed to hospital, and the fact that in no instance was there any spread of Small Pox from the neighbourhood of the cases treated as the less formidable disease, points to the correctness of the diagnosis.

By affording means for immediate isolation of the cases, many of whom were tramps and practically destitute, the hospital did good service ; and considering its age, and that it was only erected in the first instance as a temporary building, the accommodation it afforded was satisfactory.

Although, as already stated, the majority of the patients were drawn from the lower classes, this was by no means the case with all, and yet I believe that no one left the building without feeling satisfied with, and grateful for, the treatment and attention they had received.

But apart from the question as to the satisfactory treatment of patients in a temporary hospital, the unreliability and insecurity of such buildings was evidenced on the early morning of February 27th, when the terrific gale which swept over the town completely demolished the south half of the Eastern Wing. In construction the hospital resembles the letter H, the two wings—each divided by the Nurses Room into two wards—facing respectively to the east and west, whilst the administrative department and surgery occupy the central portion. Although the wind blew directly from the west it was the eastern side which was damaged, but very fortunately this was not occupied by patients. The damage was therefore confined to the destruction of the building itself, and to the breaking up of certain bedsteads and other articles that were stored within it. Prompt measures were taken for the safety of the rest of the building, and as soon as possible afterwards it was rendered permanently secure by the use of props and other supports.

The last of the continuous series of cases which formed the outbreak was discharged on July 1st, but a fresh importation of disease occurred on October 4th. This was fortunately confined to a single case, that of a man, who was received into the hospital on that day and was discharged cured at the end of the month. Considering the number of

tramps who pass through Preston in their journeys north and south, and the constant communication between this and the numerous adjoining towns, it is satisfactory that the outbreak was not of wider extent, and that no spread of disease followed upon the festivities of Easter or Whitsuntide. Information was received from, and forwarded to, the Medical Officers of other towns and districts, concerning the movements of persons who, having been in contact with the disease, might possibly be the means of introducing it into fresh localities, and this was a precautionary measure productive of good results.

During times of Small Pox, the tramp classes undoubtedly form a danger to the community, since from their neglect of vaccination, their uncleanly habits, and system of herding together, they are especially liable to contract the disease, and so in their wanderings to sow it broadcast throughout the country. The compulsory vaccination and revaccination of casuals of all ages applying for admission to the various workhouses would be of the greatest benefit, and would to some extent compensate for the unsatisfactory manner in which, especially amongst these wandering classes, the vaccination laws are at present enforced.

The cases of sickness from Typhoid Fever, as evidenced by the notifications received, were 143, whilst the deaths numbered 35, thus showing a case mortality of 24·47 per cent. Compared with the previous year, the amount of sickness was less, but the proportion of fatal cases was higher, pointing to a more severe form of the disease. Most of the deaths occurred between the ages of 15 and 45 years, and as regards locality Deepdale Ward showed the highest mortality followed by Ashton, Maudland, and Fishwick Wards. Although as usual it was impossible in the majority of cases to ascertain the actual cause of the illness, an examination of the premises frequently brought to light defects to which in all probability it might be attributed.

Scarlet Fever was the cause of 14 deaths, whilst the reported cases of sickness amounted to 308, giving a case mortality of 4·54 per cent, and shewing, that despite the persistency with which the disease had remained in the town, it had during the past—as well as during the two preceding years—been mild in character.

In 17 out of the 33 large towns, the death rate from Scarlet Fever exceeded that of Preston, while amongst the Lancashire towns, Liverpool, Salford, Burnley, Bolton and Oldham showed the heaviest mortality.

Although Measles had been present in epidemic form during the latter part of 1902, the disease again appeared towards the middle of the past year, the deaths gradually increasing from 1 in July to 57 in the month of December.

Not only had the interval between the two outbreaks thus been of unusually short duration, but the recent form of disease appeared to be of more than ordinary severity, and before the close of the year a total of 89 deaths had been ascribed to this cause. The great proportion of the deaths—65—occurred in children between the ages of 1 and 5 years, 16 being infants under the age of twelve months, and 8 children whose age exceeded 5 years. In almost every fatal case the illness was associated with Bronchitis or Pneumonia, a condition no doubt in many cases attributable to the prevailing weather, but, in a certain number, due to a want of proper precaution on the part of parents to protect the patient at the time of illness, or during the after period of convalescence. The popular disregard of Measles as a dangerous disease, and the idea that it is one necessarily incidental to childhood, have frequently been alluded to in former Reports, but in overcoming these errors some progress has recently been made by the visits and instructions of the Female Health Visitors, to whose work in this, and other, directions I shall further on draw attention. The epidemic took the course so frequently met with in former years, commencing towards the north of the town, passing to the centre and the east, then along the southern side, to terminate eventually in Ashton.

So greatly was the attendance of children at the Public Schools affected by this outbreak that—as in the preceding year—it was considered advisable to close the schools a fortnight before the time of the usual Christmas Holidays, and then to further extend these holidays until February 15th.

The actual advantage resulting from this measure, in a town like Preston, when Measles has once fairly taken hold, is open to discussion, but at any rate it afforded time for the thorough disinfection of class and cloak rooms, and, although in a great measure this was due to a natural process of burning itself out, the epidemic certainly rapidly abated soon after the schools were re-opened. Although all the large towns suffered more or less severely from Measles, in none, with the exception of Swansea, was the rate of mortality so high as in Preston, although Sheffield and Sunderland closely approached the same figures.

The notified cases of Diphtheria and Membranous Croup, numbered 83, and of these 23 or 27·71 per cent. terminated fatally. The mortality from this cause is somewhat above the average of the past few years, though below that of 1900, a year in which this disease was prevalent throughout the country. It is a form of Zymotic disease from which Preston does not suffer to any great extent, and the rate of mortality from this cause—0·18 per thousand—was exceeded in 18 of the other large towns.

There was a reduction in the mortality from the non-infectious form of Croup, the deaths of 14 children all under the age of 5 years, being registered under this heading.

Probably the means which Science now affords for arriving at a more accurate diagnosis is one reason for the increase in the number of deaths attributed to Diphtheria, and the corresponding decrease in those assigned to Croup.

The deaths of 61 children, all with 2 exceptions below the age of 5 years, were caused by Whooping Cough, a disease so often associated with an epidemic of Measles. The mortality from this cause was higher than in most of the large towns, Sheffield, Burnley, Oldham and West Ham alone showing heavier death rates in proportion to population.

The only other Infectious diseases to be dealt with are Puerperal Fever and Erysipelas. Of the former—a disease so frequently fatal in its results—7 cases were reported, of which 3 terminated in death, giving a case mortality of 42·85 per cent. Although 62 cases of Erysipelas were notified only 1 death resulted from this cause, bearing testimony to the general mildness of the attacks.

The mortality from Diarrhœa was much below the average, the deaths not only comparing favourably with the average for many years back, but even with the number recorded during the preceding year, which, as regards the sickness and mortality from this cause, was itself an exceptionally favourable one. The actual number of deaths was 103, and of this number 80 were those of infants, 19 those of children between the ages of 1 and 5 years, and the remaining 4 those of adults or elderly persons. The diminution in the mortality from this cause will be the better understood when it is remembered that the average number of deaths during each of the past six years was 237, and that during this time the population has been steadily increasing.

No doubt much of the improvement must be attributed to the low temperature which marked the summer period, checking as it did the tendency to changes of fermentation and putrefication, and to the unusually heavy and persistent rainfall which had a good effect in washing the air, cooling the ground, and flushing the sewers, drains and watercourses.

The period usually attended with the greatest heat—the months of June, July and August—passed without any great accession to the Diarrhœal mortality, and it was not until the end of the last named month, and during September and the beginning of October, that an increased number of deaths from Infantile Diarrhœa began to be returned. I would again refer to the appended Chart and to Table No. 8, as showing both the low curve of Diarrhœal mortality, and the manner in which—as in former years—it followed, at an interval of about a fortnight, the curve of the earth temperature, taken at a distance of four feet from the surface. As might be expected, since the same climatic conditions prevailed

generally throughout the country, the Diarrhœal mortality for the whole of England and Wales was less than usual, but in the majority of the large towns the improvement was less marked than in Preston, so that instead—as was so often the case,—of occupying the worst position in this respect, our rate—1·03 per thousand—is exceeded in certain towns, and very closely approached in a number of others.

Although in Table No. 12, I have endeavoured to some extent to tabulate the conditions—as relating to surroundings and feeding—under which these victims to Diarrhœa were brought up, it is impossible within the limits of any practicable Table to make comparisons of any worth. For instance an infant may be described as “Breast fed” which died a few days after birth, whereas another classified as “Artificially fed” may have died at the age of 9 months, and may during the first 6 or 8 months of its life have been suckled at the breast; or a child which has had the advantages of a clean home and an attentive mother, may on account of the latter's delicate health have been altogether brought up on artificial food, whereas another living with a negligent mother in a dirty house, may altogether, and from the very first, have been fed at the breast.

The best thing to be done is to remedy such evils as may be found to be existing, to improve the conditions of the house and its surroundings, and to teach the mothers the first principles as to the management and care of young infants.

This latter part is essentially the work of the two Female Health Visitors whose appointment dates from the beginning of 1903, and whose work during the twelve months is to some extent shown in Table No. 12 to which I have just referred.

And since prevention is proverbially better than cure, one important part of their work has been to visit all Births amongst the labouring classes as soon as registered, and so to let the infant have the benefit of good advice and instruction from the earliest possible date.

That such advice is needed, and that ignorance and negligence are only too prevalent, has all along been known; and confirmation—if required—has been too frequently met with during the enquiries carried out by the two Officials in question.

From the reports which they have furnished I could quote cases of mothers who having respectively had families of 15, 12, 10, 9, 8, 6 and 5 have buried 8, 7, 5, 7, 7, 4 and 5 all under the age of twelve months, whilst the description of the house, and of the manner in which the children have been fed, leaves little room for doubting that under more favourable conditions many of these deaths might have been prevented.

Although the work of a single year cannot be expected already to have borne much fruit, I look forward with every confidence to the good results which year by year will follow the labours of these Health Visitors, and I congratulate the Committee upon their wisdom in making the appointments. In arranging their duties I have divided the town into two districts, A and B, the first of which contains Christ Church, Ashton, Maudland, St. Peter's, Moorbrook, and Park Wards, whilst the second includes the remaining six, viz. :—Deepdale, Ribbleton, Fishwick, St. John's, Trinity, and Avenham Wards. Their duties may be roughly described as those of visiting all Births in suitable localities, in enquiring into Infantile deaths from Diarrhœa, Measles, or similar causes, and in making house to house visitations in certain districts to which I may direct their attention. When doing this, they take the opportunity of distributing and explaining Cards, giving instruction as to "The Management and Feeding of Infants." They act as Assistants to the Inspector of Food and Drugs by purchasing Samples in the different shops, and, in cases of prosecution under this Act, give evidence when required in Court. Another important though not an essential part of their duties is that of obtaining admission, and seeing to the removal, of delicate children, or those recovering from recent illness to the Ormerod Convalescent Home at St. Annes.

Contemporaneous with, and in a measure owing to, the appointment of these Health Visitors, there has been formed in the town a Society of Lady Health Visitors, and though there is no official connection between this Society and the Health Department, the object at which these ladies aim is that of improving the homes, surroundings and general home-life of the working classes, and as such their work is one deserving of the support of all who are really interested in the welfare of the town and its working population.

The deaths from Consumption—Pulmonary Tuberculosis—amounted to 110, a number below the average from the same cause in former years. As this is now regarded as an Infectious Disease, opportunity was offered in the case of each death, for the disinfection of the house, and instructions were issued showing how best to prevent the spread of the Tubercle Bacillus.

As shown in Table No 4A, there were in addition to the above deaths, 90 others due to various forms of Tubercular disease; deaths which in the weekly mortality sheets would be classified under the heading of "Other diseases," or of those incidental to early childhood.

From Bronchitis, Inflammation of the Lungs, and diseases of this class, affecting the organs of respiration, the number of deaths amounted to 353, a number considerably below that recorded from the same causes during the preceding year, and one showing a still more marked reduction over the average for the past six years. This was probably due to the absence of any severe or continued frost during the winter months, and also to the compara-

tive immunity which the town enjoyed from Influenza in epidemic form. The actual number of deaths directly ascribed to this last named disease was 23, chiefly occurring amongst persons of advanced age, but, as shown in former Reports, it is a disease which often leads to some inflammatory change in the air passages, lung substance, or its coverings, and so becomes the indirect cause of many deaths.

The deaths from Premature Births, and those diseases only met with in the early stage of infantile life amounted to 327, and to these must be added the deaths of 214 infants from the causes already enumerated, making a total mortality of 541 deaths under the age of twelve months. This shows a lower infantile mortality than has been observed for many years, the death rate of children under the age of one year being at the rate of 4.72 per thousand of the population, whilst the deaths of these infants represent a proportion of 27.67 per cent of the total deaths at all ages and from all causes. For many years past the infantile deaths have formed at least one third of the total mortality, and, taking an average of the past ten years, it will be found that they stand in the relation of 34.16 per cent.

I have already pointed out that the reduction in the general death rate for the past year is, in a great measure, due to the diminution in the amount of infantile mortality; and the improvement in this respect will be the more easily seen if the infantile death rate is gauged by the generally accepted standard of the number of children dying under the age of twelve months out of every thousand born during the year. As shown in Table No. 5, out of every thousand children born during 1903, 161 failed to survive the first twelve months, but these figures are drawn from the Registrar General's Returns, and include the deaths of children in the Fulwood Workhouse. I would here again, as in former Reports, draw attention to the fact that the Registrar General in his returns debits the town with all deaths occurring in the Workhouse—outside the limits of the town—whereas on the other hand no credit is given for the population of the Workhouse. In this respect Preston stands at a disadvantage with other towns, and still more so in the fact that, unlike other towns, she has not extended her boundaries, and taken in the surrounding suburbs, populated as they chiefly are, by young, well to do, and healthy people who make their living within the town, but reside outside its boundaries.

The infantile mortality actually occurring within the Borough was at the rate of 156 per thousand births, a number very considerably below the average of former years, and one exceeded by several of the principal towns of the Kingdom. Table No. 1A shows, amongst other things, the infantile death rate—i.e.—the deaths under one year of age to every thousand births registered—for the previous ten years; and though the reduction has been by no means steady or regular, the improved position observable during the last two years is well marked.

The high death rate which Preston—until recent years—unfortunately showed, was mainly caused by the heavy toll of infantile life exacted during the first few months after birth, and the present alteration for the better is gratifying, since, in part at least, it must be attributed to an improved condition in the homes, surroundings, and, above all, in the habits of the working classes. This again is the result of a very gradual process of education, and it is to be hoped that this will not be lost sight of by those who have now charge of educational matters, and—since it is easier to inculcate good habits in the young than it is to eradicate habits of evil in those grown up—that some serious and well arranged plan will be devised for teaching the girls in our Public Schools various subjects which may be included under the heading of Domestic Economy. This instruction should be simple, and, as far as possible, practical, leaving out the too abstruse subject of Physiology, but dealing with such matters as the cleaning and management of a cottage home, the economical cooking of simple dishes, the washing, feeding, and clothing of young children, and the general arrangement of an ordinary sick room. The reason, when it is simple and can be understood, may be given for doing a certain thing, but otherwise it should be taught and accepted as an axiom; as for instance, that certain food is necessary for a man doing manual labour, without explaining how much nitrogen it contains, or what amount he must consume to enable him to raise a certain number of foot tons in a given time. Such instruction would enable a girl, whilst still living with her parents, to do much to improve the family home, but above all, would fit her for discharging the duties which—as a wife and mother—she will most probably in later years assume.

From Old Age, Natural Decay, &c., there were recorded 110 deaths, a number slightly higher than those from similar causes in former years.

To Violence, &c. were ascribed 64 deaths, of which 47 were caused by accidents of various descriptions, the remaining 17 being cases of Suicide.

Other diseases accounted for 605 deaths, which in Table IV A. are further subdivided into the various causes which led up to them.

Chief amongst these are the different forms of Heart Disease, accounting for 176 deaths, and Cancer 104, under which heading are included all forms of malignant disease affecting any organ or part of the body.

The total number of deaths from all causes, at all ages, and in all parts of the town was, 1955, a number which represents a yearly death rate of 17·08 to each thousand of a population estimated at 114,404 persons.

As regards locality Park Ward, with a rate of 18·93, St. Peter's—18·81, and Ribbleton—18·61—were above the average for the whole town; but since the population of the various Wards has each year, since the date of the last Census, to be arrived at by a process of estimation, these figures are not absolutely reliable.

The Births for the year numbered 3,453, and were thus equal to an annual rate of 30·18 per thousand. This is somewhat higher than the rate for the preceding year, but falls below the average for a period comprising the past ten years, and the diminution becomes much more strongly marked if a more extended period is dealt with.

This gradual falling off in the Birth Rate has now been observable for several years throughout the whole of the Kingdom, and the subject is one worthy of the most serious consideration, since, if the present conditions continue, it must become one of national importance.

There are certain causes, such as the employment of mothers up to the time of parturition, which might be remedied by fresh legislation, or by the better enforcement of existing laws; since there is no doubt that work, such as that of women operatives in the mills, if carried on to the last possible moment, has the effect of either reducing the chances of the child being born alive, or else—as proved by recent experiment—of ensuring its coming into the world with a reduced weight, and a lower vitality than one born under more favourable circumstances. But in addition to causes like this, and to the anxiety on the part of the unmarried women to avoid the disgrace attached to pregnancy, there would seem to be a growing desire in the case of some parents,—from economical or other motives—to keep their families within certain limits. In doing this they receive instruction from books, pamphlets, and lectures, generally of American origin, and assistance from unprincipled charlatans, and from the black sheep that may occasionally be met with in the Medical profession. But such proceedings, like all violations of Nature's laws, recoil upon those practising them, and often result in sickness and disease, sometimes in death.

The check upon the natural increase of population may in the course of time become a national disaster, though probably as yet things are not so bad as in France, where according to a recent writer in "*La Revue Scientifique*" "every year, apart from abortion, 100,000 embryonic existences are cut short, or result in death immediately after birth." Here the low Birth rate was more than met by the reduction in the Death rate, and as a consequence the natural increase—the excess of Births over Deaths—is represented by 1,498 lives for the year.

Further information respecting the vital statistics for the past twelve months are given in the numerous Tables, which together with the usual Plans and Chart, are appended to this Report. Any discrepancies which may appear to exist between certain of them, are due to some dealing solely with the deaths which have occurred within the limits of the Borough, while others include the deaths—135 in number—which have been registered in the Fulwood Workhouse.

In addition to these Tables, there are others which tabulate and summarize the amount of Sanitary work accomplished during the year, and which give other information bearing upon the question of Public Health.

From these it will be seen that a great deal of useful work has been done in the direction of getting rid of those privies and ashpits which formerly represented the type of sanitary convenience prevailing in the town, and which in their time have been responsible for much sickness, and for no inconsiderable number of deaths. The very fact that excremental matter, and decaying refuse of all kinds, should be stored in the neighbourhood of a dwelling house is opposed to all the teachings of modern Sanitary Science, but the evil is intensified, and the risk to health increased, when the space at the backs of the houses is so contracted that these receptacles must be within a short distance of the back doors and windows, and their contents at all times offensive to the occupants' senses of sight and smell. Nor was this the full extent of their offence, since the periodical removal of their contents led to a pollution of the soil of back yard, passage, and street, and was not unfrequently followed by a further nuisance consequent upon the formation of a "tip" somewhere on the outskirts of the town.

In dealing with this matter, considerable progress has been made in each Sanitary District, where in addition to dealing with special cases presenting insanitary features, large areas have now been converted to the system of water carriage. When carrying out these improvements, advantage has been taken of the powers granted by the Improvement Act, 1900, with regard to the flagging of back yards, and during the year in cases 1997 an impermeable surface, capable of being easily kept clean, has been substituted for the old time pebble pavement with all its surface defects and attendant subsoil pollution.

So well marked and satisfactory have been the results following upon improvements of this kind, that year by year of late there has been a growing disposition on the part of owners of cottage property themselves to take the initiative, and to supplement the efforts of the Sanitary Officials by voluntarily making alterations of this description. Where the yard space is so contracted and enclosed as it is throughout the older parts of the town, this is the only way in which the surroundings of a house can be structurally improved, and where

in the course of time a considerable area is thus dealt with, the benefit to the health and comfort of the residents cannot well be overestimated. But in addition to the attempts thus made to improve the home life of the working classes, attention has also been given to the Factories, Mills, and Workshops in which are spent their working hours. In Table No. 10 is given an abstract of the evils which have been remedied and the improvements which have been carried out in places of this description throughout the town.

In former Reports I have alluded to the somewhat involved relationship between the duties of the Factory Inspector, and those of the Sanitary Officials, but, as shown by the Table in question, a good deal of work has been accomplished during the year which must tend to increase the comfort and promote the health of various classes of working people. And these improvements, although primarily intended for the benefit of the health of the workers in these establishments, indirectly protect the health of those who have to use the various articles therein prepared or manufactured. This is especially the case with regard to articles of food or wearing apparel, since the more cleanly and sanitary the conditions under which these are made, the less likely are they to become vehicles for the transmission of disease. An examination was made as to the character and amount of the closet accommodation provided in the large cotton mills, since although considerable improvements have been made in recent years, there were still to be found in some cases the old fashioned and objectionable cesspool, while in others the closets, though more modern and sanitary in construction, failed to reach the recognized standard as regards number. Although in some of the older mills difficulties arose owing to original faulty construction, and want of adequate space, there was a general disposition on the part of Millowners and Managers to do what was necessary for the health and comfort of the operatives in their employment. But consideration of this kind should be met with gratitude in return, and while the employer is morally and legally bound to attend to the health of his workpeople, the latter should remember the expense this often involves, and should at least avoid that wilful or careless destruction of property so frequently complained of by the Millowner or his Manager.

By Sec. 101 of the Factory and Workshops Act, 1901, it is provided, amongst other things, that after January 1st, 1904, an Underground Bakehouse shall not be used unless certified by the Corporation to be suitable for the purpose, and that before certifying the Corporation must be satisfied that it is suitable as regards Construction, Light, Ventilation, and in all other respects.

Certain Statutory requirements are set forth relating to all Bakehouses, and in addition the Corporation decided to adopt a Scheme of Requirements as concerns Construction, Light, Ventilation, &c., which had for this purpose been drawn up by the Incorporated Society of Medical Officers of Health.

Towards the latter part of 1903 a copy of these Requirements was delivered to the owner and tenant of every Underground Bakehouse, with the result that in some cases it was decided to make the necessary improvements, and in others to discontinue the use of the cellar as a Bakehouse.

A Sub-Committee was appointed for the purpose of visiting such Underground Bakehouses as it was proposed by the owners should remain in use, and of deciding as to the possibility or otherwise of bringing them up to the required standard.

The following Report was presented to the Sub-Committee at a Meeting held on
October 27th.

To the Chairman and Members of the Underground Bakehouses Sub-Committee.

Gentlemen,

The accompanying paper (Copy of Regulations)—which has been supplied to the owners and occupiers of all Underground Bakehouses in the Borough—sets forth the provisions of Sec. 101 of the Factory and Workshops Act, 1901,—the statutory requirements, and the requirements concerning Construction, Light, and Ventilation, which have been adopted by the Corporation.

No doubt the main object of this Section of the Act was to do away with the large Underground Bakehouses, such as are found in London and some of the principal towns, in which a number of men are employed, and in which the preparation and kneading of bread &c. is carried on, as well as the actual baking. In Preston these Bakehouses are almost entirely used for the baking alone of dinners, bread, articles of confectionary, &c., the preparation of which is carried on in another room, generally situated on a floor above.

It may be contended that under these conditions it does not much matter, from a health point of view, whether the articles of Food are baked below or above ground, and that the only person affected by the situation and conditions would be the baker himself. But it must be remembered that a licence once granted cannot afterwards be recalled, and that it will give permission—which may at some future time be used—for the preparation, as well as the baking, of bread, confectionary, &c.

It therefore becomes important that all the requirements should be carried out before any such licence is granted, and to do this thoroughly would in the majority of cases involve a very considerable outlay of money.

In some cases, in reponse to the notice sent, plans of proposed improvements have been submitted, while in others, up to the present time, no action has been taken.

The following is a list of the Underground Bakehouses in the several Sanitary Districts :—

No. 1 DISTRICT.

1, Mercer Street

84, Ribbleton Lane

55, Ribbleton Lane

No. 2 DISTRICT.

9, Guy's Row
 7, East Street
 54, Holstein Street
 35, Lawson Street
 Duckett's Court, North Road

Lord's Walk
 Back Sydney Street
 North Road
 Great Hanover Street
 Liverpool Street

No. 3 DISTRICT.

80, Byron Street
 17, Heysham Street
 111, Brook Street
 21, Tulketh Brow

59, Wellington Road
 12, Prospect Place
 1, Prospect Place

No. 4 DISTRICT.

2, Paradise Street
 16, Fishergate
 64, Stanley Street
 Hill Place

3 Lune Street
 27, Lune Street
 26, Vauxhall Road
 15, Woodhouse Grove

H. O. PILKINGTON,

October 27th, 1903.

Medical Officer of Health.

Plans were sent in for the improvement of 6 out of the total 28 Cellar Bakehouses on the list, the remaining 22 being condemned as unsuitable. In the case of 8 of the latter, the owners got over the difficulty by erecting Bakehouses on the ground level; whilst in 2 other instances the requisite alterations have either since been carried out, or are at present in process of completion. Many years ago Cellar Bakehouses were far more common in Preston, and most Lancashire manufacturing towns, than at present, and in those days—when bought bread was much less generally used—they were almost a necessity for the working class family, whose kitchen range and oven did not then admit of baking a batch of bread, or even the family dinner.

The Canal Boats have received regular attention during the year, and few changes have taken place either in their number or condition.

The following Report, giving the various details for the year, has, in accordance with the requirements of the Canal Boats' Acts, already been forwarded to the Local Government Board :

COUNTY BOROUGH OF PRESTON.

CANAL BOATS ACTS OF 1877 AND 1884.

I beg to submit my Annual Report for the year 1903, dealing with the registration and general condition of those Boats which during that time have been working on

the portion of the Preston, Lancaster and Kendal Canal situated within the jurisdiction of this Sanitary Authority.

No change has been made as to the manner, or duties, of inspection, the work having again been carried out by Sanitary Inspector Henry Livesey, and upon the same terms, no special remuneration being given for this portion of his duties.

The number of Boats on the Register now stands at 35, one—The David No. LIV—having been added during the year.

In consequence of the certificates having been torn, and so rendered insufficient for identification, new certificates were granted in the case of two Boats. Advantage was taken of this opportunity to re-measure these Boats, and reduce the number of occupants.

All the Boats were visited during the year, as well as several registered at Lancaster, a total of 103 inspections having been made during the year. Upon 12 of the Boats, conditions contrary to the Acts and Regulations were found, the complete number of such infringements being 18, particulars of which are set forth on the statistical supplement appended to this report.

Upon the representation of the Inspector, all the infringements were rectified, and therefore in no instance was there occasion for legal proceedings.

No opposition was offered to the Inspector in the discharge of his duties, and the general condition of the Boats was clean and satisfactory.

During the course of the year 7 children of school going age were found on board, but their presence was accounted for by the statement that they were either having a trip during the summer holidays, or else were suffering from Whooping Cough. In the latter case they were removed from the Boat. The number of children under school age found upon the Boats was 29, or below the average for the past seven years, the figures for each year during this period being :—

Year.		No. of Children.
1897	. . .	18
1898	.....	28
1899	.....	21
1900	.....	32
1901	.....	48
1902	.....	46
1903	. . .	29

The total number of persons occupying the cabins was 187, details of occupation, and other particulars being given in the appended supplement.

H. O. PILKINGTON,

January 27th, 1904, Medical Officer of Health.

The Markets, including the Public Abattoir, the Private Slaughter-houses still remaining in the Borough, the Wholesale Fish Market, &c. have been constantly and

regularly visited, and as shown in Tables 9 and 13, large quantities of Meat, Fish, and some Fruit have been condemned and subsequently destroyed. In almost every instance the doubtful article was voluntarily submitted for examination, and in each of the few exceptions there was some questionship of exact ownership, or other circumstance which rendered further proceedings inadvisable or unnecessary. The Public Abattoir at the Cattle Market continues to be better appreciated and more extensively used by the Butchers of the town, so that there is less necessity for such Private Slaughter-houses as still remain, and it becomes more and more a matter for regret that all were not included in a general condemnation.

Under the Food and Drugs Adulteration Act, 249 samples were purchased for analysis. Of these 86 were Milk, 54 Butter, 27 Lard, and 27 Coffee, the remainder—of which details are given in Table 15—being articles in common use.

In 21 instances the Analyst's Report showed that the articles were adulterated or were not of satisfactory and genuine quality. In 8 of these cases further proceedings were instituted, and penalties varying from 10/- and costs to simple payment of costs were imposed. In the other cases it was considered sufficient for the vendor to be cautioned, and this was accordingly done by letter from the Town Clerk's Office.

In very few instances was it found necessary to have recourse to legal proceedings to enforce compliance with nuisance abatement notices.

In a case of neglect of limewashing an order of the Court that the requisite work should be done within 21 days was duly complied with, after which the case was withdrawn upon payment of costs.

A more important prosecution was that against a Manufacturer of Animal Manure, Cat's Meat, Fowl Food, &c. carrying on a business towards the Eastern outskirts of the town. For many years past the premises in question have been used for similar purposes, although in the occupation of different tenants, each of whom has at various times been fined for creating an effluvium nuisance, similar to the one for which the recent proceedings were taken.

In the present case, after a lengthy enquiry extending throughout the day, a conviction was obtained and a fine of £5 and costs imposed.

Since not only the appearance, but to some extent the healthiness of a town depends upon the condition of the roadways and footpaths, it is satisfactory to find that of the former 23,209 square yards have been sett paved, and of the latter 7,021 square yards covered with

flags. A street with smooth impervious surface, laid at a proper curve, cannot have any collection of stagnant water, and admits of being thoroughly and efficiently scavenged.

The new Destructor upon the Moor, which will take the place of the one formerly standing upon this site, is now rapidly approaching completion, and, in conjunction with that upon the Marsh at the Western side of the town, will be capable of effectively dealing with the whole of the refuse collected within the Borough. The improvements with which this apparatus is fitted will prevent the possibility of any nuisance from smoke or effluvia ; whilst its increased capacity will do away with any necessity for further " tipping."

In connection with it, there will also be a new Disinfector to take the place of the one at the Sanitary Yard, which, although it has done excellent service in past years, is of antiquated pattern, and not up to the requirements of modern science.

Throughout the year the town's water supply was ample, and, as shown by Chemical Analysis, was of good quality and very suitable for all domestic purposes. A Bacteriological examination also showed that it was free from any Bacteria indicative of sewage pollution.

A Bill is at present before Parliament by which it is sought to obtain increased powers as regards supply, storage, and distribution. As soon as the Royal Assent has been given, the work required for these improvements will at once be put in hand, and then for years to come the town need have no apprehension as regards the amount or quality of its water supply.

In company with the Chairman of the Health Committee I had the privilege of attending the twenty-first Congress of the Sanitary Institute held last July in Bradford. As usual there were a number of papers dealing with subjects affecting the Sanitation of Urban and Rural Districts, and from these, and the discussions which followed upon them, a good deal of useful information could be obtained.

But one of the best results of such a Congress is that it gives those engaged in Sanitary work the opportunity of exchanging opinions with their fellow workers in other towns, of discussing the difficulties with which they have been confronted, and of devising the best means of doing satisfactory work in the future.

H. O. PILKINGTON,

MEDICAL OFFICER OF HEALTH.

June 11th, 1904.

PORT SANITARY.

The duties carried out in connection with Port Sanitation during the past year were of a routine character.

No cases of infectious disease occurred amongst any of the crews arriving in Port, such cases of sickness as were discovered proving to be of a comparatively mild and harmless character.

A greater of vessels were examined than during any former year, but the number found to be in any way defective—135—was below that of the previous year.

The particulars of these various defects are set forth in Table No. 16, and it is satisfactory to be able to report that when attention was once drawn to them, prompt measures were taken to set matters right. In this way a good deal of useful work was accomplished, which in each instance must tend to improve the health and comfort of the crew.

As in the previous year, close attention was paid to the vessels trading between this Port and those of Liverpool and Glasgow, on account of the possible introduction of Small Pox, a possibility increased by the nature of the cargo—waste paper and rags—which in some instances was carried.

Measures were also taken for the destruction of the rats, which especially infest the grain boats, and thence find their way into the grain warehouses and other Dock buildings. Apart from the damage which they do to cargo, buildings, drains, &c., the part which they undoubtedly can play in the spread of Bubonic Plague, renders their company especially undesirable.

Where large numbers of labourers are employed—as at the Docks—closet accommodation within easy distance is a necessity, and during the past year provision was made in this respect for the workmen engaged in the ship-breaking yard.

H. O. PILKINGTON,

Medical Officer of Health,

Port Sanitary Authority.

June, 1904.

TABLE No. 1.

Number and Causes of Deaths at different Ages, for the Year ending 31st December, 1903.

Cause of Death.	Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and over	Total.	Corres- ponding year 1902.	Corres- ponding year 1901.	Corres- ponding year 1900.	Average for six years.
Small Pox .....	...	1	1	...	...	...	2	...	...	...	...
Fever.....	...	4	2	14	15	...	35	21	24	44	33·83
Scarlatina	1	11	1	1	...	...	14	20	86	32	26·34
Measles	16	65	8	...	...	...	89	54	31	121	88·36
Diarrhoea	80	19	...	...	1	3	103	154	200	199	237·37
Whooping Cough.....	31	28	2	...	...	...	61	25	37	64	42·83
Diphtheria .....	...	18	5	...	...	...	23	17	17	42	20·64
Croup	2	12	...	...	...	...	14	15	8	20	17·00
Consumption .....	...	1	7	24	77	1	110	115	116	154	134·00
Bronchitis.....	56	28	1	2	57	65	209	270	258	369	290·86
Inflammation of Lungs	24	24	5	5	49	12	119	120	135	174	140·00
Teething, Premature Births & Debility }	327	64	6	...	...	...	397	386	485	596	523·17
Old Age .....	...	...	...	...	4	106	110	105	103	87	93·13
Violence, &c.	1	7	6	7	34	9	64	55	64	49	56·64
Other Diseases	3	5	22	36	371	168	605	641	649	685	651·33
Total.....	541	287	66	89	608	364	1955	1998	2213	2636	2355·50

TABLE No. 2.

Number and Causes of Deaths in each Month of the Year ending 31st December, 1903.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Small Pox.....	1	1	...	..	...	...	...	...	...	...	...	...	2
Fever.....	4	...	1	...	4	3	2	3	3	2	8	5	35
Scarlatina	1	2	...	2	2	...	1	1	...	1	2	2	14
Measles .....	...	...	...	...	...	...	1	2	4	13	12	57	89
Diarrhœa	2	...	...	1	...	7	4	17	25	38	6	3	103
Whooping Cough.....	8	10	10	4	7	7	7	2	6	...	...	...	61
Diphtheria	8	...	1	...	3	1	2	1	1	1	3	2	23
Croup	1	2	1	1	...	1	...	...	...	...	5	3	14
Consumption	18	10	9	6	6	10	7	7	12	8	9	8	110
Bronchitis.....	29	25	24	15	13	14	9	8	8	14	18	32	209
Inflammation of Lungs.....	9	10	11	8	9	14	4	6	11	6	20	11	119
Teething, Convulsions, &c.	36	30	36	31	36	41	14	33	15	42	41	42	397
Old Age	8	7	7	8	15	8	8	9	10	8	10	12	110
Violence, &c.....	6	6	8	7	7	6	5	6	4	1	4	4	64
Other Diseases	67	49	50	39	59	46	40	64	45	56	49	41	605
Total.....	198	152	158	122	161	158	104	159	144	190	187	222	1955

TABLE No. 3.

Number and Causes of Deaths in each Ward for the Year ending 31st December, 1903.

Wards.	Small Pox.	Fever.	Scarlatina.	Measles.	Diarrhoea and Dysentery.	Whooping Cough.	Diphtheria.	Croup.	Consumption.	Bronchitis.	Inflammation of Lungs.	Teething, Pre-mature Births & Debility	Old Age.	Violence, &c.	Other Diseases.	Total Deaths	Rate per 1000 per annum.	Total Births	Rate per 1000 per annum.	Population
St. John's Ward	2	3	2	10	2	3	1	12	19	11	52	10	4	62	193	16·70	373	32·28	11555
Avenham Ward	2	...	1	...	...	...	6	8	6	16	5	2	45	91	12·26	135	18·18	7422
Christ Church Wd.	...	1	4	8	14	7	2	1	5	5	9	29	8	3	41	137	15·50	269	30·44	8837
Ashton Ward	6	...	1	2	3	2	...	8	9	6	26	7	10	30	110	14·17	231	29·77	7758
Maudland Ward	4	2	8	1	2	2	3	4	15	7	30	6	2	39	125	15·87	227	28·83	7873
St. Peter's Ward	2	...	26	13	8	...	1	5	30	18	38	8	4	49	202	18·81	383	35·67	10735
Moor Brook Ward	1	...	11	6	9	3	...	9	19	9	29	9	2	45	152	16·58	258	28·14	9167
Park Ward	1	1	11	18	15	1	4	27	19	19	59	19	7	79	280	18·93	490	33·12	14791
Trinity Ward.....	...	2	...	15	16	8	1	...	13	32	12	29	12	4	58	202	17·92	318	28·22	11267
Deepdale Ward	10	1	1	4	1	3	3	10	14	8	25	6	6	37	129	14·23	281	31·01	9060
Ribbleton Ward	2	1	4	11	4	4	...	5	19	7	44	12	3	44	160	18·61	275	31·98	8597
Fishwick Ward	3	...	2	7	2	2	1	4	17	7	20	6	...	37	108	14·70	212	28·87	7342
Gaol, Infirmary, &c	2	1	...	...	...	...	...	...	2	3	...	...	2	17	39	66	...	1	...	...
Total.....	2	35	14	89	103	61	23	14	110	209	119	397	110	64	605	1955	17·08	3453	30·18	114404

Death Rate per annum, per 1000 of the Population for the Year.....17·08

Average Death Rate per annum, per 1000 of Population, for six years20·33

Do.

Do.

10 years20·02

Death Rate per annum, per 1000 of Population, of Children under one year 4·72

Per centage of Deaths under one year to total Deaths for the Year27·67

Do.

Do.

for 10 years34·16

TABLE No. 4.

Number of Deaths in each Ward during each Month of 1903.

WARDS.	January.	February.	March	April.	May.	June.	July	August.	September.	October.	November.	December.	Totals.
St. John's Ward	25	18	25	18	18	20	11	9	10	15	14	10	193
Avenham Ward	11	6	9	9	8	7	9	9	5	3	5	10	91
Christ Church Ward.....	16	9	7	8	9	11	9	18	15	17	10	8	137
Ashton Ward	11	7	8	4	12	5	7	14	3	7	19	13	110
Maudland Ward	12	8	6	5	15	15	6	12	6	11	7	22	125
St. Peter's Ward	14	16	21	15	14	15	8	16	10	24	12	37	202
Moor Brook Ward	12	12	13	7	10	7	13	14	14	16	19	15	152
Park Ward	24	25	26	13	26	19	11	19	24	32	32	29	280
Trinity Ward	19	10	14	8	16	20	10	13	19	26	19	28	202
Deepdale Ward.....	18	9	8	6	5	10	5	11	10	8	20	19	129
Ribbleton Ward	11	13	9	16	10	16	7	10	15	17	18	18	160
Fishwick Ward	13	11	7	7	13	8	6	6	10	10	9	8	108
Gaol, Infirmary, &c.....	12	8	5	6	5	5	2	8	3	4	3	5	66
Total.....	198	152	158	122	161	158	104	159	144	190	187	222	1955

TABLE I A.

Vital Statistics of Whole District during 1903 and Previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Total Deaths in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District. (Work-house.)	DEATHS AT ALL AGES. NETT.	
		Number	Rate*	Number	Rate per 1,000 Births registered	Number	Rate*			Number	Rate.*
1893	110,225	3809	34.55	1032	268	2753	24.97	48	150	2903	26.33
1894	111,425	3545	31.81	770	217	2186	19.61	56	129	2315	20.77
1895	112,638	3702	32.95	927	249	2528	22.44	81	161	2689	23.87
1896	113,864	3673	32.25	760	204	2191	19.24	58	151	2342	20.56
1897	115,103	3687	32.03	954	263	2687	23.34	63	166	2853	24.78
1898	116,356	3559	30.58	812	221	2107	18.10	81	138	2245	19.29
1899	117,622	3492	29.68	889	255	2492	21.18	85	181	2673	22.72
1900	118,902	3410	28.67	814	236	2636	22.16	66	200	2836	23.85
1901	113,117	3418	30.21	737	218	2213	19.56	75	149	2362	20.88
1902	113,766	3278	28.81	618	188	1998	17.56	61	144	2142	18.82
Averages for years 1893-1902	114,301	3557	31.15	831	231	2379	20.81	67	156	2536	22.18
1903	114,404	3453	30.18	541	156	1955	17.08	66	135	2090	18.26

*Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) } 3,721

Total population at all ages.....112,982
 Number of inhabited houses.....24,194
 Average number of persons per house 4.66

} At Census of 1901.

TABLE 2A.

Vital Statistics of separate Localities in 1903 and previous years.

Localities.	1901				1902				1903			
	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.
St. John's Ward	11409	378	212	65	11495	354	217	71	11555	373	193	59
Avenham Ward	7363	132	110	22	7394	101	82	13	7422	135	91	16
Christ Church Ward ...	8753	254	159	48	8787	239	147	42	8837	269	137	48
Ashton Ward	7688	210	98	33	7728	205	109	26	7758	231	110	32
Maudland Ward	7783	213	130	50	7823	238	138	44	7873	227	125	38
St. Peter's Ward	10597	352	213	67	10655	324	176	61	10735	383	201	63
Moor Brook Ward	9080	315	183	78	9119	264	138	47	9167	258	153	42
Park Ward	14592	492	290	124	14701	482	265	91	14791	490	280	81
Trinity Ward	11098	338	243	66	11185	319	249	83	11267	318	202	50
Deepdale Ward	8986	272	156	62	9020	284	149	51	9060	281	129	30
Ribbleton Ward	8506	266	201	68	8547	248	144	54	8597	275	159	56
Fishwick Ward	7262	195	143	50	7302	196	123	35	7324	212	109	24
Public Institutions .....	...	1	75	5	...	5	61	4	...	1	66	2

TABLE 3A.

Cases of Infectious Disease notified during the Year, 1903.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.								TOTAL CASES NOTIFIED IN EACH LOCALITY.													Removed to Hospital.
	At all ages.	At ages—Years.						St. John's Ward.	Avenham Ward.	Christ Church Ward.	Ashton Ward.	Maudland Ward.	St. Peter's Ward.	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward.	Ribbleton Ward.	Fishwick Ward.	Gaol, Infirmary, &c.		
		Under 1 Year.	1 to 5.	5 to 15	15 to 25	25 to 65	65 and up-wards.															
Small Pox	31	...	2	2	5	22	...	6	...	1	6	8	1	2	4	...	1	...	...	2	30
Cholera ... ..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	81	4	45	15	9	7	1	7	5	6	6	7	6	8	6	7	9	9	5	...	...
Membranous Croup ...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
Erysipelas	63	3	3	1	11	38	7	9	3	6	2	2	3	2	8	3	9	10	6	...	...
Scarlet Fever	308	6	109	167	18	8	...	31	17	22	34	22	46	44	36	13	18	9	15	1	...	
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	139	...	11	42	32	53	1	14	5	4	16	11	14	3	15	9	30	10	7	1	...	
Relapsing Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever...	4	...	...	1	1	2	...	...	...	...	...	...	...	2	1	..	1	...	...	...	...
Puerperal Fever..	7	...	...	...	...	7	...	...	1	1	...	...	1	...	2	...	1	...	1	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Totals	635	14	170	229	76	137	9	67	31	40	64	50	71	61	72	33	69	38	35	4	30	

TABLE 4A.

Causes of, and Ages at, Death during Year 1903.

CAUSES OF DEATH.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in Localities (at all ages.)												Deaths in Public Institutions.	Deaths in Workhouse.
	All Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	St. John's Ward.	Avenham Ward.	Christ Church Ward.	Ashton Ward.	Maudland Ward.	St. Peter's Ward.	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward.	Ribbleton Ward.	Fishwick Ward.		
Small-pox	2	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Measles	88	19	61	8	...	...	...	2	...	8	1	8	26	11	11	15	1	3	2	...	...
Scarlet Fever	14	2	10	2	...	...	...	3	2	4	...	2	...	...	1	...	1	1	...	...	...
Whooping Cough	61	31	28	2	...	...	...	2	...	7	3	2	8	9	15	8	1	4	2	...	...
Diphtheria and Membranous Croup ...	23	...	19	4	...	...	...	3	...	2	2	2	...	3	1	1	3	4	2	...	...
Croup	14	2	12	...	...	...	...	1	...	1	...	3	1	...	4	...	3	...	1	...	...
Fever { Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric	35	...	4	3	13	15	...	2	...	1	6	4	2	1	1	2	10	2	3	1	...
Other continued .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	23	...	...	...	1	13	9	3	2	1	...	1	3	...	4	2	1	3	2	...	1
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	106	83	19	...	...	1	3	10	1	14	2	2	14	6	19	16	4	11	7	...	...
Enteritis	9	5	3	...	...	1	...	1	...	...	...	...	2	...	2	2	1	1	...	...	...
Puerperal Fever... ..	3	...	...	...	...	3	...	...	1	...	...	...	1	...	...	...	1	...	...	...	...
Erysipelas	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Other Septic Diseases	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis	131	1	2	6	24	96	2	12	6	5	9	4	5	9	26	13	10	5	5	2	20
Other Tubercular Diseases... ..	90	43	29	8	5	5	...	14	4	7	3	5	11	12	21	5	3	...	2	2	1
Cancer, Malignant Disease	104	...	...	...	2	67	35	11	6	3	5	10	8	6	10	13	6	10	5	7	4
Bronchitis	230	58	28	1	2	66	75	19	8	6	9	15	31	19	19	31	14	18	17	3	21
Pneumonia	121	26	23	4	6	46	16	11	6	8	6	7	18	9	19	12	8	7	7	...	3
Pleurisy .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs	2	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Alcoholism	19	...	...	...	2	12	5	2	2	2	...	1	...	...	2	3	2	...	1	2	2
Cirrhosis of Liver { .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Venereal Diseases	7	5	2	...	...	...	...	...	1	1	...	...	...	...	3	1	...	...	...	...	1
Premature Birth	69	69	...	...	...	...	...	14	6	9	6	2	3	5	9	3	5	4	3	...	...
Diseases and accidents of Parturition	15	...	...	...	3	12	...	1	...	3	...	1	...	2	3	1	2	1	...	...	1
Heart Diseases	176	...	3	5	8	107	53	18	11	12	9	7	13	9	24	12	12	18	11	7	13
Accidents	47	1	7	6	5	21	7	1	1	3	6	1	1	2	5	3	6	3	...	15	...
Suicides	17	...	...	...	2	13	2	3	1	...	4	1	3	...	2	1	...	...	...	2	...
Old Age	122	...	...	...	...	5	117	10	5	8	7	6	9	9	19	12	6	13	6	2	10
All other causes	560	209	32	15	18	179	107	48	28	32	32	40	43	40	60	46	29	52	32	21	57
All causes	2090	555	283	66	91	664	431	193	91	137	110	125	202	152	280	202	129	160	108	66	135

TABLE No. 5.

Birth Rate, Death Rate, and Analysis of the Zymotic Death Rate in 33 of the largest English Towns for the 52 weeks ending 2nd January, 1904. Compiled from the Registrar General's Returns.

Name of Town.	Population	Birth Rate.	Death Rate.	ZYMOTIC DEATH RATE.								Deaths under one year to 1,000 Births.
				Small Pox.	Meas-les.	Scar-let Fever.	Diph-theria.	Who'p-ing Cough	Fever.	Diarr-hœa.	Total.	
London	4,613,812	28·4	15·6	0·00	0·44	0·08	0·16	0·35	0·08	0·64	1·77	131
Croydon	141,157	26·3	11·8	0·01	0·17	0·01	0·12	0·44	0·03	0·28	1·09	108
West Ham	281,894	33·7	15·2	0·00	0·49	0·06	0·26	0·59	0·13	1·10	2·65	145
Brighton	125,405	24·3	14·2	0·00	0·05	0·00	0·25	0·10	0·03	0·39	0·84	114
Portsmouth	194,960	27·9	14·7	0·00	0·08	0·13	0·38	0·17	0·11	0·59	1·49	114
Norwich	114,351	27·8	15·2	0·00	0·01	0·13	0·10	0·07	0·06	0·75	1·14	149
Plymouth.....	112,022	25·5	16·5	0·00	0·04	0·12	0·12	0·24	0·13	0·49	1·16	144
Bristol	338,895	27·4	14·3	0·00	0·03	0·14	0·35	0·19	0·06	0·27	1·07	116
Wolverhampton	96,947	30·4	15·5	0·00	0·55	0·15	0·09	0·07	0·18	0·89	1·96	141
Birmingham.....	533,039	31·7	17·7	0·02	0·36	0·26	0·25	0·17	0·12	1·10	2·31	158
Leicester	220,272	27·3	14·2	0·09	0·33	0·06	0·12	0·16	0·06	0·59	1·44	160
Nottingham	245,985	28·3	16·9	0·00	0·39	0·14	0·26	0·38	0·14	0·68	2·01	165
Derby	118,707	27·1	13·5	0·01	0·04	0·06	0·02	0·27	0·06	0·38	0·86	129
Birkenhead	113,598	30·7	16·7	0·04	0·08	0·17	0·10	0·36	0·13	1·18	2·08	155
Liverpool.....	716,810	33·4	20·4	0·19	0·18	0·26	0·22	0·43	0·22	0·98	2·50	159
Bolton	173,401	27·0	17·4	0·01	0·27	0·33	0·21	0·04	0·19	0·90	1·98	153
Manchester	553,486	32·0	19·7	0·04	0·63	0·17	0·24	0·38	0·17	0·89	2·55	169
Salford.....	226,480	32·2	18·9	0·03	0·58	0·24	0·38	0·42	0·22	0·98	2·86	166
Oldham	138,786	25·6	18·6	0·16	0·27	0·21	0·39	0·78	0·09	0·42	2·33	161
Burnley	99,469	27·2	19·1	0·10	0·17	0·24	0·20	0·56	0·15	1·40	2·82	217
Blackburn	131,218	25·1	15·7	0·01	0·41	0·10	0·19	0·09	0·12	0·52	1·47	159
Preston	114,404	30·4	18·6	0·01	0·90	0·13	0·18	0·54	0·29	1·03	3·11	161
Huddersfield ...	94,963	23·7	16·7	0·02	0·00	0·15	0·14	0·17	0·08	0·26	0·84	120
Halifax.....	106,754	21·1	15·0	0·03	0·05	0·06	0·09	0·18	0·12	0·16	0·72	123
Bradford	283,412	23·3	16·4	0·04	0·05	0·10	0·19	0·31	0·14	0·51	1·37	148
Leeds	443,559	29·3	16·5	0·04	0·27	0·24	0·14	0·27	0·13	0·62	1·74	153
Sheffield	425,528	33·2	18·6	0·04	0·79	0·22	0·09	0·61	0·10	1·27	3·10	182
Hull	249,639	31·3	16·9	0·02	0·41	0·03	0·30	0·09	0·07	1·24	2·19	161
Sunderland	149,572	35·1	19·9	0·02	0·81	0·22	0·21	0·33	0·16	0·59	2·36	158
Gateshead	115,531	35·7	16·7	0·16	0·03	0·32	0·09	0·31	0·04	0·91	1·88	160
Newcastle	222,241	31·1	19·2	0·04	0·05	0·12	0·16	0·23	0·03	0·57	1·22	166
Cardiff	172,598	30·5	14·0	0·01	0·15	0·17	0·20	0·22	0·09	0·46	1·32	123
Swansea	95,489	32·0	18·6	0·00	0·99	0·12	0·22	0·34	0·11	0·48	2·28	165

TABLE No. 6.

The estimated Population, Number of Births and Deaths, Rates per thousand, and natural increase in the Borough, for each year since 1841.

Years.	Estimated Population	No of Deaths.	Death Rate per 1000	No. of Births.	Birth Rate per 1000	Natural Increase
1841	51,000	1508	29.57	1974	38.70	466
1842	52,840	1550	29.33	1944	36.79	394
1843	54,680	1459	26.38	1975	36.12	516
1844	56,520	1380	24.42	2200	38.92	820
1845	58,360	1635	28.01	2293	39.29	558
1846	60,200	2189	36.36	2475	41.09	286
1847	62,050	2059	33.18	2268	36.59	209
1848	63,900	1550	24.26	2223	34.79	673
1849	65,750	1751	26.63	2403	36.55	652
1850	67,000	1745	25.81	2649	39.19	904
1851	69,450	2241	32.26	2803	40.36	562
1852	70,850	2284	32.23	2998	42.31	714
1853	72,250	2346	32.47	3072	42.51	726
1854	73,600	2013	27.35	3037	41.26	1024
1855	75,000	2557	34.10	3071	40.95	514
1856	76,400	2251	29.46	3151	41.24	900
1857	77,800	2131	27.39	3286	42.24	1155
1858	79,200	2545	32.13	3082	38.91	537
1859	80,600	2111	26.19	3399	42.17	1288
1860	82,000	2236	27.27	3381	41.23	1145
1861	82,985	2585	31.15	3626	43.69	1041
1862	83,231	2411	28.97	3522	42.32	1111
1863	83,477	2142	25.66	3388	40.57	1246
1864	83,686	2432	29.06	3422	40.89	990
1865	83,932	2708	32.26	3338	39.77	630
1866	84,178	2854	33.90	3535	41.99	681
1867	84,424	2608	30.89	3732	44.20	1124
1868	84,670	2798	33.04	3710	43.82	912
1869	84,916	2248	26.47	3434	40.44	1186
1870	85,162	2406	28.25	3486	40.93	1080
1871	85,427	2511	29.75	3438	40.24	897
1872	85,654	2294	26.78	3704	43.24	1410
1873	86,000	2899	33.71	3558	41.37	659
1874	86,000	2962	34.44	3582	41.65	620
1875	86,000	2581	30.01	3499	40.68	918
1876	86,600	2331	26.92	3623	41.84	1292
1877	87,000	2336	26.85	3601	41.39	1265
1878	87,300	2502	28.66	3697	42.35	1195
1879	87,600	2395	27.34	3403	38.83	1068
1880	88,000	2425	27.35	3475	39.49	1050
1881	96,524	2014	21.17	3489	36.14	1445
1882	97,656	2511	25.71	3785	38.76	1214
1883	98,564	2345	23.79	3576	36.28	1231
1884	99,481	2540	25.53	3745	37.44	1205
1885	100,406	2563	25.52	3868	38.52	1305
1886	101,340	2769	27.32	3961	39.08	1192
1887	102,283	2703	26.42	3870	37.83	1167
1888	103,234	2326	22.53	3823	37.03	1497
1889	104,194	3019	28.97	3912	37.63	902
1890	105,163	2726	25.92	3718	35.35	992
1891	107,864	2807	26.02	3830	35.50	1023
1892	109,038	2481	22.75	3686	33.80	1205
1893	110,225	2753	24.97	3809	34.55	1056
1894	111,425	2186	19.61	3545	31.81	1359
1895	112,638	2528	22.44	3702	32.95	1174
1896	113,864	2191	19.24	3673	32.25	1482
1897	115,103	2687	23.34	3687	32.03	1000
1898	116,356	2107	18.10	3559	30.58	1452
1899	117,622	2492	21.18	3492	29.68	1000
1900	118,902	2636	22.16	3410	28.67	774
1901	113,117	2213	19.56	3418	30.21	1205
1902	113,766	1998	17.56	3278	28.81	1280
1903	114,404	1955	17.08	3453	30.18	1498

TABLE No. 7.

Per Centage of Deaths from Zymotic Diseases to Sickness reported during the
Year ending December 31st, 1903.

Disease.	No. of Cases Reported.	No. of Deaths.	Per Centage.
Small Pox	31	2	6.45
Typhoid Fever	143	35	24.47
Scarlet Fever	308	14	4.54
Diphtheria	83	23	27.71
Puerperal Fever	7	3	42.85
Erysipelas	62	1	1.61

TABLE No. 8.

Meteorological Observations for the Year ending 31st December, 1903.

Month.	Attached Thermometer.	Barometer.	Barometer corrected to 32deg. Fahr.	Hygrometer.		Temperature in Shade.		Earth Thermometer.		Mean Daily Temperature.	Humidity Saturation=100	Temperature of Town's Water.	Rainfall in inches.	Number of Deaths from	
				Dry Bulb.	Wet Bulb.	Maxi- mum.	Mini- mum.	One Foot	Four Feet.					Bronchitis.	Diarrhoea.
January	39.73	29.826	29.946	40.37	38.96	43.47	35.72	39.85	42.99	39.41	89	39.6	2.81	29	2
February ...	43.97	29.882	29.985	42.29	42.99	47.56	39.97	43.68	45.02	43.94	89	44.0	3.44	25	...
March	46.18	29.557	29.665	44.75	43.12	49.10	39.75	43.16	44.45	45.50	88	44.2	3.12	24	...
April	44.47	29.765	29.876	45.39	42.81	49.41	38.41	43.12	45.04	43.91	80	46.6	3.39	15	1
May.....	51.54	29.828	29.907	53.61	49.75	58.52	45.29	48.32	47.94	51.90	76	51.9	2.12	13	...
June | .....	56.45	29.988	30.052	58.05	53.12	63.37	48.51	53.38	52.47	55.94	72	59.1	1.82	14	7
July.....	59.97	29.873	29.928	60.27	56.69	64.65	55.00	56.83	55.88	59.33	79	62.3	3.74	9	4
August	58.46	29.693	29.765	59.04	55.74	63.03	52.58	55.72	56.19	57.80	80	60.1	4.62	8	17
September ...	55.39	29.898	29.967	56.71	54.43	60.82	50.15	53.58	54.52	55.49	85	57.2	6.59	8	25
October	49.79	29.451	29.538	50.60	49.19	53.90	46.35	49.96	52.52	50.12	89	52.7	6.22	14	38
November ...	...	...	...	45.21	44.33	49.32	40.72	45.46	48.68	44.79	91	47.1	3.38	18	6
December ...	...	...	..	38.62	38.03	41.62	34.69	40.16	44.19	38.16	91	41.5	2.49	32	3

TABLE No 9.

Summary of Work done during the Year ending 31st December, 1903.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	TOTAL.
Number of Ashpails cleansed .....	...	...	...	...	1,790,742
„ Ashpits „ .....	...	...	...	...	10,444
„ Animals removed .....	...	4	1	23	28
Houses Disinfected	126	199	184	167	676
Schools „	8	15	6	7	36
Parcels of Bedding disinfected	15	22	15	33	85
Number of Complaints received	487	322	412	879	2,100
Inspections of Dwelling Houses	3762	3990	3063	2901	13,716
„ Infected Houses	381	229	605	369	1,584
„ Lodging Houses	48	862	135	2869	3,914
„ Cellars	178	441	187	507	1,313
„ Canal Boats .....	...	...	...	96	96
„ Vans and Tents .....	...	41	76	104	221
„ Schools	98	47	63	226	434
„ Cowsheds, Dairies, and Milkshops	157	112	140	153	562
„ Slaughter Houses	30	91	36	151	308
„ Markets ... ..	...	272	41	582	895
„ Ashpits and Yards	4298	5265	3205	3976	16,744
„ Drains	4397	5140	3516	4212	17,265
Re-inspections	1968	2538	2986	1750	9242
Circular Letters sent .....	...	250	...	168	418
Notices served for Defective Slopstone Pipes	33	59	46	43	181
„ „ Drains	182	167	173	115	637
„ „ Spouts	36	44	21	33	134
„ „ Water Closets	111	111	129	130	462
„ „ Privies and Ashpits	22	59	16	2	99
„ „ Yard Pavement	31	68	4	17	120
„ Overcrowding .....	...	1	2	6	9
„ Limewashing	11	91	30	33	165
„ Manure Accumulations ... ..	...	3	3	3	9
„ Stagnant Water.....	...	1	12	33	46
„ General Nuisances	55	112	38	108	313
House Drains Tested	21	56	91	68	236
Notices served to Sewer, Level, Pave, &c. ...	228	196	501	170	1,095
„ Flag Yards	305	729	728	235	1,997
„ Convert Privies into W.C's.	262	550	487	206	1,505
„ Fill up Ashpits .....	...	25	...	30	55
„ Close Houses unfit for Habitation	4	...	...	1	5
„ Close Cellar Dwelling .....	...	...	...	1	1
Fish, Shell—Condemned and Destroyed .....	...	...	...	494lbs.	
„ Wet „ .....	...	...	...	10,747 „	11,460lbs
„ Dry „ .....	...	...	...	219 „	

TABLE No. 10.

Summary of Work done under Factory and Workshops Act during Year ending 31st Dec., 1903.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	TOTAL.
Number of Workshops on Register	105	266	122	237	730
„ Circular Letters sent re Out-Workers ...	...	60	...	51	111
„ Out-Workers reported ... ..	...	87	9	57	153
Visits to Factories and Workshops	537	948	546	927	2958
„ Retail Bakehouses	42	145	134	200	521
„ Public Bakehouses	84	50	163	77	374
Drains Tested ... ..	...	...	...	4	4
<i>Defects found and remedied :—</i>					
Defective Slopstone Pipes ... ..	...	...	...	1	1
„ Drains	4	2	5	12	23
„ Spouts ... ..	...	1	2	...	3
„ Water Closets ... ..	...	14	4	21	39
„ Privies and Ashpits ... ..	...	...	...	1	1
Offensive Ashpit abolished ... ..	...	...	...	1	1
Unflagged Yards ... ..	...	...	...	1	1
Privies converted into W.C's. ... ..	...	...	...	1	1
Limewashing required ... ..	...	8	10	9	27
General Nuisances	3	...	2	4	9
Drain Openings in Bakehouses ... ..	...	...	...	1	1
Cellar Bakehouses unfit &c.	3	...	...	...	3
Insufficient Ventilation ... ..	...	...	...	3	3
Defective Floors ... ..	...	2	...	...	2
No W.C. accommodation for Females ... ..	...	...	...	2	2
No Receptacle for Refuse ... ..	...	...	...	1	1
Nuisances from offensive Trades ... ..	...	...	...	1	1

TABLE No. 11.

List of Factories and Workshops on Register, Year ending 31st December, 1903.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	TOTAL.
Bakehouses, Retail	12	29	...	23	64
„ Public	8	8	7	6	29
Basket Makers .....	...	2	2	...	4
Beer Bottlers	1	...	...	3	4
Boot, Shoe, and Clog Makers, Leather Curriers ...	25	33	19	20	97
Brassfounders	1	...	...	...	1
Breweries .....	...	2	...	...	2
Brush Makers .....	...	1	...	2	3
Biscuit Makers .....	...	4	...	...	4
Cabinet Makers, Woodcarvers, Upholsterers	4	8	6	11	29
Coach Builders .....	...	4	...	3	7
Confectioners	12	...	5	...	17
Cotton Waste Cleaners ...	...	1	...	...	1
Cotton Manufacturers	21	13	17	7	58
Coopers	1	3	1	...	5
Cycle Makers and Enamellers ...	1	6	6	7	20
French Polishers ... ..	...	2	...	1	3
Ironfounders .....	...	4	...	...	4
Joiners, Builders, Wheelwrights, Wood Turners	3	4	4	3	14
Marine Store Dealer .....	...	4	...	1	5
Milliners, Dressmakers, Underclothing Manufacturers	21	73	24	41	159
Picture Framers, Mount Cutters, Gilders .....	...	5	1	4	10
Photographers .....	...	...	...	2	2
Printers, Bookbinders, Engravers .....	...	...	...	9	9
Plumbers. Painters	7	10	2	15	34
Restaurant Keepers .....	...	7	...	...	7
Rope and Twine Makers .....	...	...	2	...	2
Saddlers ... ..	...	5	1	3	9
Smiths	1	6	6	20	33
Slipper Makers .....	...	2	...	...	2
Stone and Marble Masons	1	2	...	2	5
Sugar Boilers .....	..	4	...	...	4
Tailors	3	28	11	35	77
Watch Makers and Jewellers ...	...	13	3	8	24
Wire Rope Makers .....	...	1	...	...	1
Wire Workers .....	...	...	1	...	1
Offensive Trades	Fell Mongers .....	...	...	1	1
	Soap Boilers .....	...	1	1	2
	Fat and Tallow Melters .....	...	...	2	2
	Tripe Boilers	1	3	1	5
	Knacker Yards	1	...	...	1
Various	Gut Scrapers .....	...	2	...	2
	.....	...	7	3	6
.....

TABLE No. 12.
FEMALE HEALTH VISITORS.

Summary of Work done during Year ending 31st December, 1903.

						Districts.		Total.
						A.	B.	
Visits, Diarrhœa Deaths.	{	Number of Houses visited				44	34	78
		" " Found Clean				24	21	45
		" " " Dirty				20	13	33
		Children, Breast Fed				5	1	6
		" Artificially Fed.....				32	27	59
		" Partially Breast Fed				7	9	16
Visits, Measles Deaths.	{	Number of Houses visited				60	21	81
		" " Found Clean				44	15	59
		" " " Dirty				16	6	22
Visits, Births.	{	Number of Houses visited				1063	532	1595
		" " Found Clean				842	419	1261
		" " " Dirty				169	113	282
		Children Breast Fed				600	247	847
		" Artificially Fed				214	106	320
		" Partially Breast Fed				197	179	376
Visits, House to House.	{	Number of Houses visited				553	1135	1688
		" " Found Clean				258	711	969
		" " " Dirty				293	424	717
Revisits, Number of						2678	752	3430
No. of Cards distributed						1123	700	1823



TABLE No. 13.

Return of Work done by Inspector of Food and Drugs, &c., for the year 1903.

Food and Drugs, Samples purchased	.....	.....	249
Cow-sheds and Dairies visited	.....	.....	162
Slaughter-houses visited	.....	.....	4,258
Meat Condemned and Destroyed	.....	.....	127,567 lbs.
Fruit Do. Do.	.....	.....	15 lbs.

TABLE No. 14.

Contagious Diseases (Animals) Act, 1878.

Name of Disease.	Situation of Premises.	Date of Outbreak.	Number of Diseased Animals.	Number of Healthy Animals.	Slaughtered by Owner.	Slaughtered by order of Board of Agriculture.	Number of Visits.
Swine Fever.	Stable Yard, Cattle Market Hotel.	January 5th, 1903.	3	6	6	...	6

TABLE No. 15.

Substances submitted for Analysis during the year 1903.

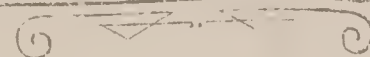
Name of Article.	No. of Samples.	Result.	Name of Article.	No. of Samples.	Result.
Milk	68	Genuine	White Pepper	6	Genuine
Milk (Skimmed) ...	5	Do.	Cayenne Pepper ...	5	Do.
Cheese	5	Do.	Mace.....	1	Do.
Butter	51	Do.	Ground Ginger.....	2	Do.
Lard	27	Do.	Demerara Sugar ...	4	Do.
Beef Dripping ..	3	Do.	Mixed Sweets	16	Do.
Bread	5	Do.	Malt Vinegar	1	Do.
Coffee	26	Do.	Whiskey	3	Do.
Milk	1	1.05 per cent. fat, 9.21 per cent. other solids=10.26 per cent. total solids. Vendor cautioned by Town Clerk.			
Milk	1	1.42 per cent. fat, 9.25 per cent. other solids=10.67 per cent. total solids. Vendor cautioned by Town Clerk.			
Milk	1	2.2 per cent. fat, 8.75 per cent. other solids=10.95 per cent. total solids. Vendor summoned and fined 10s. and costs.			
Milk	1	2.29 per cent. fat, 9.20 per cent. other solids=11.49 per cent. total solids. Vendor summoned, case dismissed on payment of costs.			
Milk ..	1	2.37 per cent. fat, 8.6 per cent. other solids=10.97 per cent. total solids. Vendor summoned, case dismissed on payment of costs.			
Milk	1	2.43 per cent. fat, 9.53 per cent. other solids=11.96 per cent. total solids. Vendor cautioned by Town Clerk.			
Milk	1	2.6 per cent. fat, 8.27 per cent. other solids=10.87 per cent. total solids. Vendor cautioned by Town Clerk.			
Milk	1	2.65 per cent. fat, 9.02 per cent. other solids=11.67 per cent. total solids. Vendor cautioned by Town Clerk.			
Milk	1	2.69 per cent. fat, 9.44 per cent. other solids=12.13 per cent. total solids.			
Milk	1	2.78 per cent. fat, 9.24 per cent. other solids=12.02 per cent. total solids. Vendor cautioned by Town Clerk.			
Milk	1	Poorest quality sanctioned by the Board of Agriculture, but is passable. Vendor cautioned by Town Clerk.			
Milk	1	3.18 per cent. fat, 7.27 per cent. other solids=10.45 per cent. total solids. 17 per cent. added water. Fined 10s. and costs.			
Milk	1	3.35 per cent. fat, 7.66 per cent. other solids=11.01 per cent. total solids. 10 per cent. added water. Fined 10s. and costs.			
Butter	1	Contained 0.93 per cent. of borates, calculated as boracic acid. Vendor cautioned by Town Clerk.			
Butter	2	Contained borates equivalent to 45 grains of boracic acid per pound. Vendor cautioned by Town Clerk.			
Beef Dripping	1	Contained upwards of 50 per cent. cotton seed oil. Vendor summoned and fined 5s. and costs.			
Beef Dripping	1	Contained upwards of 66 per cent. of cotton seed oil. Vendor summoned and fined 5s. and costs.			
Coffee	1	Contained 40 per cent. of chicory. Vendor summoned and fined 10s. and costs.			
White Pepper	1	Contained about 10 per cent. excess of pepper husks. Vendor summoned, case withdrawn.			
Whiskey	1	Contained 4 per cent. excess of water. Vendor cautioned by T.C.			

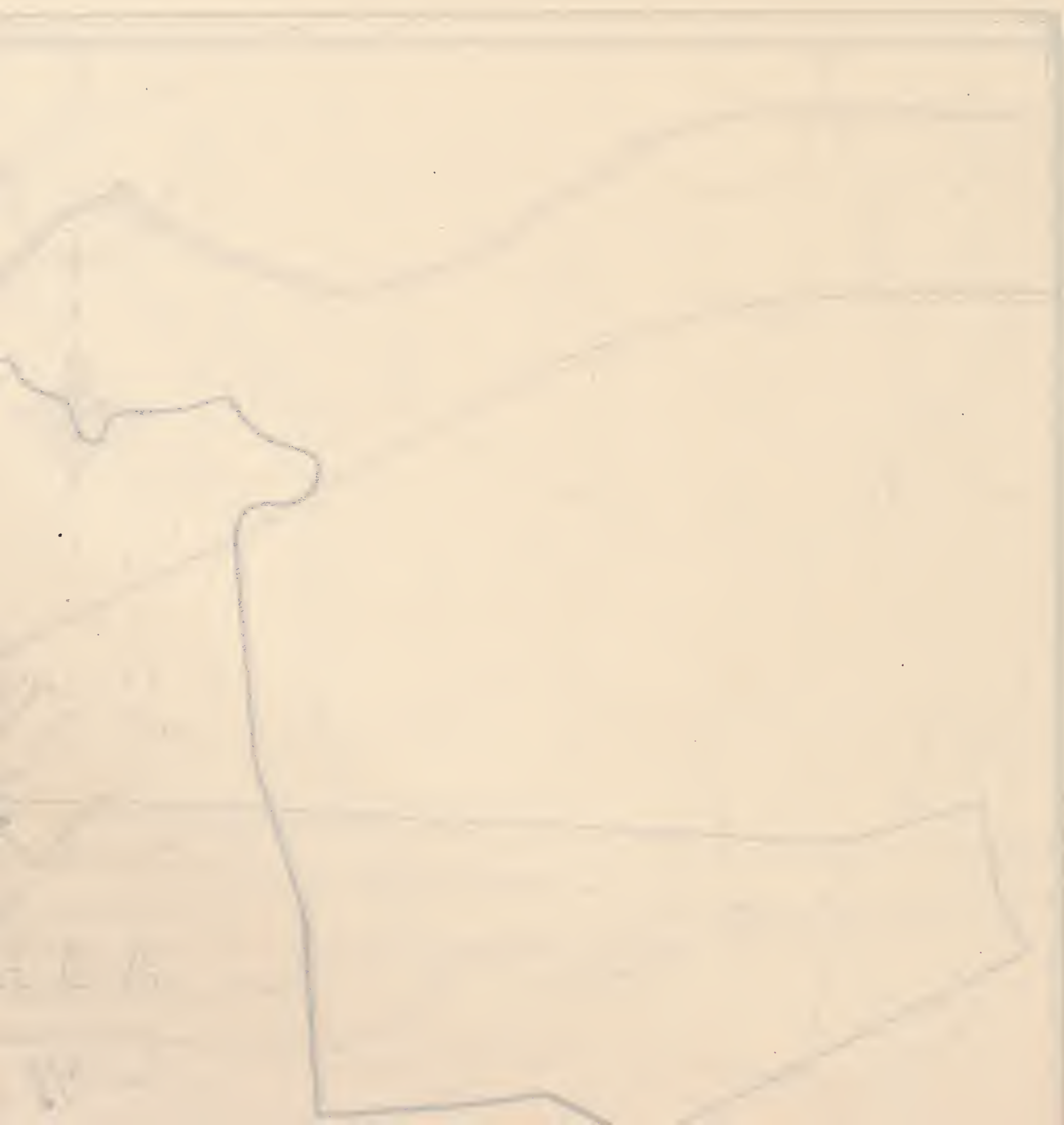
TABLE No. 16.

Return of Port Sanitary Work for the Year ending December 31st, 1903.

Steamships Inspected	.....	.....	.....	.....	942
Sailing Vessels Inspected	.....	.....	.....	.....	141
Re-Inspections	.....	.....	.....	.....	215
Condition of Vessels Inspected	{ Good Defective				948
					135
<i>Defects remedied.</i>					
Forecastle Dirty	.....	.....	.....	.....	49
Do. Required Painting	.....	.....	.....	.....	21
Do. Deck Leaking	...	.....	.....	.....	2
Do. Ventilation and Light Defective	...	.....	.....	.....	3
Defective Ventilation of Water Closet	...	.....	.....	.....	5
Foul and Defective Water Closet...	.....	.....	.....	.....	29
Foul Water Casks and Tanks	.....	.....	.....	.....	36
Dirty Provision Lockers	.....	.....	.....	.....	18
Do. Bilges	...	.....	.....	.....	12
Do. Chain Lockers under Forecastle	.....	.....	.....	.....	10

INFANTILE MORTALITY, 1903. 15





INFANTILE DIARRHOEA. 1903.

The Red Spots • indicate deaths from Diarrhoea under the age of one year



ZYMOTIC DISEASES, 1903.

- The Red Spots • indicate deaths from Scarlet Fever.
The Blue Spots • indicate deaths from Typhoid Fever.
The Yellow Spots • indicate deaths from Diphtheria.



Portions coloured Red indicate Property reported upon and improved during the Year 1903.

Those in lighter shade indicate Blocks dealt with during the previous Nineteen Years.



